**Innovation, Engagement, Connection**

**Lesson plans for Seismic Waves**

Goal 12.C, 12.E

O – To be able to describe the differences between P and S waves

P – Prior to lesson, students will go to: <http://aspire.cosmic-ray.org/labs/seismic/index.htm> to learn about seismic waves. This site has reading, simulations and quizzing.

- In class, discuss and clarify what was learned from the website (revisit the site)

- Share simulations of Seismic Eruptions and Seismic Waves downloaded from the Alan Jones website: <http://pods.binghamton.edu/~ajones/#Seismic-Eruptions> (this is projected for students)

- Oral quizzing and discussion

A – Exit quiz: Explain the differences between P and S waves in terms of how they move, speed, and whether they travel through solids or liquids

H – None

Download simulations form <http://pods.binghamton.edu/~ajones/#Seismic-Eruptions>. Once at the website click on Seismic-eruptions. You will be taken to a page with information. Embedded in the reading you will see reference to the seismic eruption simulation. Download by clicking on SeismicEruptionSetup.exe. Do the same for the seismic waves. The kids loved seeing these. They wanted them on their laptop so I’m going to see about getting the simulations on their 1:1 laptops for next year.